Chapter 6

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ABSTRACT
Although the implementation of e-auction events is not all that new, a current interest in understanding main issues involved in its implementation exists, especially in a business to business (B2B) environment. A clear will to classify and systematize the numerous variables directly or indirectly affecting e-auction suitability and final performance determination is evident also from previous conceptual literature contributions. Nevertheless a lack of empirical work in this field is evident. This work provides a contribution to the body of knowledge on critical factors impacting on e-Reverse Auctions (e-RA) performance in a B2B context. Based on an explorative factor analysis addressed to a panel of academic experts and practitioners, it aims at identifying the main factors affecting price and process performance in B2B e-RA.

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1. INTRODUCTION

E-Government (eGov) is now pervasive in public sector since it has enabled improvements to internal and external processes and activities. One new and emerging area of eGov is the “Dynamic Purchasing System” as defined in article 1.6 of the Procurement Directive 2004/18/EC; it uses the chronology of a tender procedure, introducing modern purchasing techniques, such as electronic auctions.

Dynamic purchasing system is a completely electronic process for making commonly used purchases which opens throughout its validity to any economic operator which satisfies the selection criteria and has submitted an indicative tender that complies with the specification. Such techniques help to increase competition and streamline public purchasing, particularly in terms of the savings in time and money which their use will allow (Özbilgin and Imamolu, 2011).

Among ICT tools able to reduce different transaction and communication costs, such as e-catalogues, dynamic auctions, intelligent agent applications, e-Reverse Auctions (eRAs) are used to obtain more favourable pricing, shorten time and reduce costs for negotiation.

Compared to traditional negotiation mechanisms in purchasing processes, the significant benefits and savings which e-Reverse Auctions have delivered to many companies in recent years, both in terms of transaction cost reductions and impact on business profitability (Klein, 1997; Van Heck, 1998), have persuaded many consulting firms to hype the advantages of e-Reverse Auctions and thus power their popularity (Brunelli, 2000). Recent surveys by Forrester and Purchasing magazine (Hannon, 2003; Hannon, 2004; Forrester, 2002; Forrester, 2003) showed that 15-25% of respondents had used e-auctions and 10-15% expected to use them; in addition Forrester predicts that as much as 50 US$ billion could be spent through this intention. The rising number of Business Service providers addressing e-Sourcing and eAuctioning services to industrial companies is today an evident proof of firms’ expectations and interest in the e-auction phenomena. According to the Institute for Supply Management, 25% of US companies were using this tool in 2004 (www.napm.org); the findings are confirmed in Purchasing’s annual benchmark e-sourcing survey, in which adoption of e-RA by US companies was found to evolve from 27% in 2004 to 31% in 2006 (Hannon, 2006).

The growth of e-commerce has, in fact, led to many business to business auctions for goods whose trade was previously negotiated bilaterally. This is true not only for standard goods (commodity) but also for non-standard products especially when the true value or market price is uncertain. This evidence underscores the need to analyze the mechanism of online auctions and to investigate into what really matters in B2B e-RA design (Klemperer, 2002). In fact, even if auction theorists have made important progress on these topics, for example in economic theory, auction theory, finance, law, most of these contributes are of quite low utility for actually designing e-auctions.

The purpose of this work is to identify and examine the main factors which explain price and process performance in B2B e-RA (final price gain vs cost saving and increased productivity of the negotiation process) and to expand the scope of information on this field in order to study e-RA feasibility and support the formulation of management actions during the e-auction design phase. With this aim a set of relevant variables were selected from literature and an exploratory analysis, based on an online survey to academics experts and practitioners from 4 European Business Providers, was performed.

The chapter is structured as follows. Firstly an overview of the theoretical foundations of e-auction performance and potential critical factors is presented. Next, after presenting the methodological approach, the exploratory factor analysis is demonstrated. Finally the results